

## LISTING OF THE CLAIMS

### In the Claims:

A complete copy of the claims including status indicators appears below.

1 1. (Currently amended) A system for facilitating communication between fixed and  
2 handheld devices using infrared communication, said handheld device adapted to be  
3 operated by a user, said system comprising:

4 a first infrared transmitter and a first infrared receiver, said first infrared  
5 transmitter and said first infrared receiver being located in said fixed device, said fixed  
6 device having a normal mode in which said first infrared transmitter transmits ranging  
7 pulses and said first infrared receiver detects those of said ranging pulses transmitted  
8 from said first infrared transmitter which are reflected by an object located in a  
9 predetermined area, said fixed device also having a communication mode, allowing  
10 bidirectional communication between said handheld device and said ~~first~~ fixed device  
11 and a Broadcast mode initiated by the fixed device responsive to detection of an error  
12 relating to an operating condition of said fixed device, allowing said first infrared  
13 transmitter to transmit a Broadcast signal indicating the error;

14 a second infrared transmitter and a second infrared receiver, said second infrared  
15 transmitter and said second infrared receiver being located in said handheld device;  
16 second control logic located in said handheld device, said second control logic  
17 configured to cause an Attention Signal to be emitted from said second infrared

transmitter in response to an initiation command provided by a user, said Attention Signal being received by said first infrared receiver if said second infrared transmitter in said handheld device is located within detection range of said first infrared receiver; and first control logic located in said fixed device which is configured to discontinue transmission of ranging pulses of said first infrared transmitter upon detection of said Attention Signal, whereupon said fixed device changes from said normal mode to said communication mode, thereby allowing an optical communication link to be initiated between said first infrared transmitter and said second infrared receiver and between said second infrared transmitter and said first infrared receiver, and said first control logic causes first infrared transmitter to transmit signals representing device-specific data of said ~~first~~ fixed device to said second infrared receiver of said handheld device over said optical communication link, and said second control logic operating in a scanning mode in response to a further user-initiated command to initiate a scanning function to search for and detect Broadcast signals being transmitted by said first infrared transmitter.

Claim 2 (Cancelled)

3. (Currently amended) A system for facilitating communication between a fluid dispensing device and a handheld control device, said system comprising:  
a first transmitter and a first detector located in said handheld control device;

said fluid dispensing device including a second transmitter and a second detector  
fluid dispensing device having a normal mode in which said second transmitter transmits  
ranging pulses and said second receiver detects those of said ranging pulses transmitted  
from said second transmitter which are reflected by an object located in a predetermined  
area, said fluid dispensing device also having a communication mode in which said  
second transmitter transmits signals to said handheld device and a Broadcast mode;  
broadcast control logic located in said fluid dispensing device and configured to  
~~respond to an initiation command provided by a user to operate in said Broadcast mode to~~  
emit from said second transmitter a Broadcast Signal indicating an error relating to an  
operating condition of said fluid dispensing device; and  
receiving control logic located in said handheld control device and configured to  
operate in a scanning mode in response to a user-initiated command to detect and identify  
said Broadcast Signal following ~~its~~ receipt of said Broadcast signal by said first detector.

4. (Currently amended) A method for communicating between fixed and handheld  
devices using infrared communication, said handheld device adapted to be operated by a  
user, said method comprising:

providing a first infrared transmitter and a first infrared receiver which are located  
in said fixed device, said fixed device having a normal mode in which said first infrared  
transmitter transmits ranging pulses and said first infrared receiver detects those of said  
ranging pulses transmitted from said first infrared transmitter which are reflected by an

object located in a predetermined area, said fixed device also having a communication mode, allowing bidirectional communication between said handheld device and said ~~first~~ fixed device and a Broadcast mode initiated responsive to detection of an error relating to an operating condition of said fixed device, allowing said first infrared transmitter to transmit a Broadcast signal indicating the error;

providing a second infrared transmitter and a second infrared receiver which are located in said handheld device;

emitting a user-initiated Attention Signal from said second infrared transmitter within the detection range of said first infrared receiver;

receiving the Attention Signal with said first infrared receiver if said second infrared transmitted in said handheld device is located within detection range of said first infrared receiver;

discontinuing the transmission of said ranging pulses from said first infrared transmitter;

establishing an optical data link between said first infrared transmitter and said second infrared receiver and between said second infrared transmitter and said first infrared receiver; ~~and~~

causing said first infrared transmitter to transmit signals representing device-specific data of said ~~first~~ fixed device to said second infrared receiver over said optical data link; and

28           causing said handheld device to operate in a scanning mode in response to a user-  
29           initiated command to search for and detect Broadcast signals being transmitted by said  
30           first infrared transmitter.

1     5.     (Previously presented) A system as defined in Claim 1, wherein said first infrared  
2     receiver comprises an infrared detector capable of detecting said Attention Signal and  
3     said ranging pulses.

1     6.     (Previously presented) A system as defined in Claim 1, wherein said second  
2     infrared receiver comprises an infrared detector capable of detecting signals generated  
3     from said first infrared transmitter when said fixed device is in said communication  
4     mode.

1     7.     (Previously presented) A system as defined in Claim 1, wherein said fixed device  
2     comprises a fluid dispensing device.

1     8.     (Previously presented) A system as defined in Claim 7, wherein said fluid  
2     dispensing device is actuated to dispense fluid upon the receipt of reflected ranging  
3     pulses by said first infrared receiver.

1 9. (Previously presented) A system as defined in Claim 1, wherein signals generated  
2 from said first infrared transmitter when said fixed device is in said communication mode  
3 provide an indication of the operational status of said fixed device.

1 10. (Previously presented) A system as defined in Claim 1, wherein signals generated  
2 from said second infrared transmitter when said fixed device is in said communication  
3 mode are used to interrogate said fixed device.

1 11. (Previously presented) A system as defined in Claim 1, wherein signals generated  
2 from said second infrared transmitter when said fixed device is in said communication  
3 mode are used to program said fixed device.

1 12. (Currently amended) A system as defined in Claim 1, wherein signals generated  
2 from said second infrared transmitter when said fixed device is in said communication  
3 mode are used to provide information relating to the past operation of said fixed device.

1 13. (Previously presented) A system as defined in Claim 1, wherein said ranging  
2 pulses each comprise a sequence of pulses.

1 14. (Previously presented) A system as defined in Claim 1, wherein said ranging  
2 pulses comprises pulses having a repetition rate of four Hertz.

Claims 15-18 (Cancelled).

1 19. (Previously presented) A system as defined in Claim 1, wherein said first infrared  
2 receiver and said second infrared receiver each comprise at least one photo detector.

1 20. (Previously presented) A system as defined in Claim 1, first infrared transmitter  
2 and said second infrared transmitter each comprise an LED.

1 21. (Previously presented) A system as defined in Claim 1, additionally comprising a  
2 threshold detector for comparing said reflected ranging pulses to a threshold value.

1 22. (Previously presented) A system as defined in Claim 1, wherein said handheld  
2 device is selectively operable to provide a plurality of user selected functions, including  
3 sending a status request, sending a set command and sending a program command.

1 23. (Previously presented) A system as defined in Claim 1, wherein the duration of  
2 said Attention signal is greater than the duration of a normal pulse cycle for the ranging  
3 pulses.

1 24. (Currently amended) A system as defined in Claim 1, wherein the initiation  
2 ~~command provided by the user causes the second control logic to initiate a scanning~~  
3 ~~function to search for Broadcast signals~~ are transmitted periodically and include data

- 4 identifying the signal as a Broadcast signal, data identifying the fixed device that has
- 5 detected an error, and data indicating the type of error that has been detected.